

Simulation Tools Model Icing for Aircraft Design



Glenn Research Center

***American Kestrel Company, LLC
Ithaca, New York***

NASA Technology

- ◆ Water in the atmosphere is prone to freeze on airframes, wings, turbines, and engines
- ◆ To enhance aviation safety, NASA developed the LEWICE ice accretion simulation software
- ◆ Its versatility, ease of use, and speed make LEWICE the premier ice-shape generation program



Partnership

- ◆ American Kestrel Company, LLC (AKC) provides consulting services to aircraft manufacturers in the field of aviation safety and icing
- ◆ AKC improved LEWICE's user interface and formed a partnership with Glenn Research Center through a Space Act Agreement, allowing AKC to distribute the updated program internationally

Benefits

- ◆ AKC's modified program, LEWINT, adds a user interface, analysis tools, and automated plotting
- ◆ The software reduces testing times and late-stage design changes, saving money and reducing risks
- ◆ Since 2007, AKC has licensed LEWINT to 25 customers, rivaling LEWICE's popularity